

### AMENDMENTS TO THE CLAIMS

1. (currently amended) A radial fan ~~(1)~~ with a housing ~~(2)~~ and a fan impeller ~~(3)~~ disposed therein, an air inlet ~~(4)~~ and an air outlet ~~(5)~~, a pressure space ~~(6)~~ being formed between the latter, ~~characterised in that~~ wherein in front of the air inlet ~~(4)~~ a laminar element ~~(7)~~ is disposed which, in a bypass ~~(8)~~ formed therein, comprises a sensor ~~(9)~~ for recording at least one parameter of the medium flowing through the air inlet ~~(4)~~.

2. (currently amended) The radial fan according to Claim 1, ~~characterised in that~~ wherein the laminar element ~~(7)~~ consists of an arrangement of flow channels ~~(10)~~ which are surrounded by an outer cylinder ~~(11)~~.

3. (currently amended) The radial fan according to Claim 1 ~~or 2~~, ~~characterised in that~~ wherein the flow channels ~~(10)~~ are formed in one element ~~(12)~~ which is inserted in the outer cylinder ~~(11)~~, the bypass ~~(8)~~ being formed between the two components.

4. (currently amended) The radial fan according to ~~any of Claims 1 to 3~~, ~~characterised in that~~ Claim 1, wherein the bypass ~~(8)~~ has an access gap ~~(13)~~ and a discharge gap ~~(14)~~ which are each formed between the element ~~(12)~~ and the outer cylinder ~~(11)~~.

5. (currently amended) The radial fan according to Claim 4, ~~characterised in that~~ wherein the access gap (13) and the discharge gap (14) are in flow communication with the inflow opening (4') of the laminar element (7) and the outflow region (29) of the same.

6. (currently amended) The radial fan according to ~~either of Claims 3 or 4, characterised in that~~ Claim 3, wherein behind the access gap (13) the bypass (8) has a settling chamber (15') for settling the air flow.

7. (currently amended) The radial fan according to ~~either of Claims 5 or 6, characterised in that~~ Claim 5, wherein the sensor (9) is disposed in/on a sensor channel (16) which is in flow communication with a respective settling chamber (15', 15'') by means of an inflow and an outflow opening (17; 18).

8. (currently amended) The radial fan according to ~~any of Claims 1 to 7, characterised in that~~ Claim 1, wherein an inflow channel (19) for a further medium is formed between the laminar element (7) and the air inlet (4) of the housing (2).

9. (currently amended) The radial fan according to Claim 8, ~~characterised in that~~ wherein the further medium flows in, evenly distributed over the whole of the air inlet (4).

10. (currently amended) The radial fan according to ~~any of Claims 1 to 9,~~  
~~characterised in that~~ Claim 1, wherein the further medium is supplied via a feed element  
(20).

11. (currently amended) The radial fan according to Claim 10, ~~characterised~~  
~~in that~~ wherein the feed element (20) has a sensor (21) for the further medium.

12. (currently amended) The radial fan according to Claim 11, ~~characterised~~  
~~in that~~ wherein the sensor (21) is disposed in a bypass (22) which has a settling  
chamber (23).

13. (currently amended) The radial fan according to Claim 12, ~~characterised~~  
~~in that~~ wherein the sensor (21) is disposed in a sensor channel (35) which is in flow  
communication with the settling chamber (23) by means of an inflow and an outflow (24,  
25).